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May 3, 2007

Mr. Orlando Monaco
Department of Navy
Base Realignment and Closure PMO-Northeast
4911 South Broad Street
Philadelphia, PA 19112-1303

Subject: March 2007 Draft *Work Plan for Investigation Activities at the Former Orion Street Landfill-South*

Dear Mr. Monaco:

The following comments regarding the March 2007 Draft *Work Plan for Investigation Activities at the Former Orion Street Landfill-South* (prepared by ECC) are submitted on behalf of the Brunswick Area Citizens for a Safe Environment (BACSE).

1. General Comment. BACSE concurs with comments submitted by the Maine Department of Environmental Protection (MEDEP) and U.S. Environmental Protection Agency (EPA) regarding the Draft Site 2 Work Plan. The agencies' comment letters are dated April 11, 2007, and April 10, 2007, respectively. BACSE will not repeat the agencies' comments below except where additional emphasis is desired.

2. Landfill Characterization. MEDEP Comment Number 5 states that the Navy should consider an additional objective to determine the boundary of the landfill and its groundwater plume. In Comment Number 9b, MEDEP highly recommends that a test pit be located within the landfill itself to characterize the waste itself (particularly the ash) that may not be identified by the EM survey. EPA Comments 1 and 5 also speak to the need for direct inspection of subsurface materials. All of these comments indicate that the nature and extent of the landfill have not yet been adequately characterized.

BACSE believes that now is the time to ensure that the landfill at Site 2 and any associated contamination are adequately defined so that future remedial efforts (including implementing institutional controls) can be properly designed and implemented prior to base closure. This means determining the horizontal and vertical extent of landfill material (the landfill boundary), as well as identifying the nature of the wastes disposed, particularly ash. Activities associated with waste incineration at the site must also be understood so that any resulting contamination can be addressed.

The Navy's recent experience with the excavation of the landfill and overlying soil at Site 9 revealed that the ash and other landfilled material were far more extensive than had been delineated in previous investigations. This discovery has resulted in delays and increased costs in completing the excavation and removal of contaminated material at Site 9. Unlike at Site 2, several source investigations had been conducted at Site 9 since the August 1990 Remedial Investigation (RI). Yet the ash was found to extend well beyond the boundaries identified in the RI and subsequent Site 9 studies.

BACSE is concerned that the RI did not do an adequate and accurate job of identifying the boundary of the landfill at Site 2. For example, is it known what the site looked like before waste was disposed starting in 1945? The 1990 RI report states on page 7-1 that the waste disposal area partially fills in a former borrow pit. What is the extent (horizontal and vertical) of the landfilled material? Furthermore, there was no test pitting or other direct observation of material actually buried in the landfill. Without knowing more accurately what went into the landfill, it will be difficult to identify and remediate site-related contamination. BACSE believes that more than one test pit within the landfill itself will be necessary.

The limited extent and capability of the magnetometer survey (it only detected metallic debris) performed during the RI, along with the stated assumptions that Site 2 was located within the controlled-access portion of an active base, and that Site 2 posed less risk than other sites under investigation does not inspire confidence that waste and any related contamination has been well-defined. Therefore, BACSE believes that the Navy's investigation should be revised to accurately define the landfill boundary and the nature of the wastes disposed, followed by determining the nature and extent of any site-related contamination.

3. Dioxin Testing. Both the MEDEP and EPA stated in their comment letters that dioxin must be included as an analyte for the Site 2 investigation, which BACSE agrees with. It is important that a sufficient number of samples be collected from appropriate locations so that if dioxin is not detected, the stakeholders can accept that finding. If dioxin is detected, the Navy's investigation must also evaluate the pathways by which dioxin contamination might have migrated from the site. Consideration of wind-blown dispersal of ash from both the incinerator and the landfill must be evaluated along with water-borne erosion, transport, and deposition of contaminated soil and ash.

If dioxin is detected, BACSE would also be concerned with possible biomagnification in aquatic settings. As explained by the Agency for Toxic Substances and Disease Registry (ATSDR) in the December 1996 *Public Health Statement for Chlorinated Debenzo-p-dioxins (CDDs)* (see Section 1.2), CDDs do not readily dissolve in water, and instead will attach to soil particles or organic material and settle to the bottom of a water body. They may also work their way up the food chain by attaching to microscopic plants and animals that are then consumed by larger organisms, which are consumed by still larger

organisms, and so on. Because these compounds are difficult for organisms to break down, the concentrations of CDDs can increase on up the food chain. This biomagnification explains why concentrations of CDDs that are undetectable in water can cause measurable amounts in aquatic organisms.

4. Aerial Photographs. In September 1999, as part of a site visit, several air photos were presented by the Navy. At this time, the Public Works Department was located in Building 8, and the photos displayed were also kept on file there. The brief notes recorded on September 1, 1999, indicate the first pair of photos was dated 6/29/53 and were numbered SDW-18-16 and SDW-18-17. The second pair of photographs was dated 10/9/58 and numbered AN-3-8 and AN-3-9.

In 1953, the notes indicate there was a pit [gravel or borrow pit] with ponded water in the bottom and a sharp scarp on the southwest edge of the pit. The bottom of the pit was relatively flat. There were no buildings. There appeared to be a broad drainage from the flat area northwest of the pit that eventually drained into Mere Brook, with a question of was that area excavated. The notes for the 1958 photographs indicate the bottom of the pit had low groundcover and shrubs, and there were three small buildings (2 garages and 1 shed?) on the flat area northwest of the pit. There was also a "burn area" in a shallow depression on the flat area northwest of the pit. It looked like debris had been pushed over the bank along the northwest side of the pit. Surface water [runoff] from the area next to one of the garages could have drained over the edge [to Mere Brook]. There were also two other low areas at the northwest end of the site that lead down into Mere Brook.

5. Page 1, Section 1.1. The second paragraph contains the statement that a substantial component of the disposed material could be ash. Page 7-1 of the RI states that if an incinerator operated at the site, a substantial component of the disposed material must be ash. Given the recent experience excavating ash at Site 9, it is reasonable to revise the statement according to the RI text.

BACSE suggests the Navy consider interviewing retired personnel who were on base during or shortly after the landfill was reportedly operational and who might have some knowledge of the timing, location, and nature of incineration and waste disposal at Site 2.

6. Page 2, Sections 1.2 and 1.3. Please include some of the hydrogeologic data (such as hydraulic conductivities) from Section 7.4 (page 7-3) of the August 1990 RI report. The RI also noted in Section 7-3 (page 7-3) a large natural slope failure or slump along the marsh between LT-202 and LT-203. This feature likely affects groundwater flow locally, as well as depth to clay. Please check the aerial photos for slumps along the slope adjacent to Mere Brook, and factor the features in to the design of subsurface investigations. Ground truthing any slumps identified from the photographs, along with field inspection for slumped areas not shown on the photographs, should also be performed.

7. Page 5, Section 2.0. What, if anything, does the current Base Instruction require (agency notification, permits, etc.) for the proposed field activities?

8. Page 6, Section 2.1.2. Why was the Electromagnetic (EM) survey method selected to assess subsurface conditions? How will the EM results be correlated with the magnetometer survey performed under the RI? Will EM detect ash? How will the extent of non-metallic waste be determined?

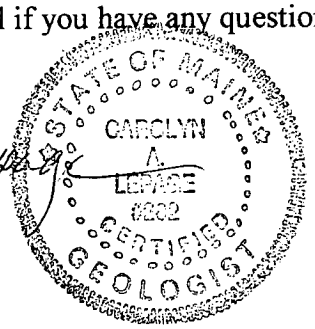
9. Page 7, Section 2.2. Because the landfilled material has never been characterized, direct-reading radiological hazard detecting instruments must be used during invasive activities at Site 2.

10. Page 16, Section 3.0. The activities proposed in the Navy's work plan, along with the changes and additions recommended in the three comment letters, will advance the understanding of Site 2 significantly. This is particularly important with base closure scheduled for the not-too-distant future. BACSE recommends that the Completion Report include a conceptual model for the site that incorporates pre-existing information along with the newly acquired geologic, geophysical, hydrogeologic, chemical, and historical data. The impact regarding the on-going long-term monitoring, institutional controls, and possible remedial actions should also be presented.

11. General Comment. BACSE suggests that a reference list for acronyms be added to the Site 2 Work Plan.

Please do not hesitate to call if you have any questions.

Sincerely,



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